REMARKS/ARGUMENTS

Claims 1 - 157 are pending in the present application. Claims 1, 21, 26, 33, 39, 40, 43, 44, 45, 55, 65, 70, 77, 83, 84, 87, 88, 89, 100, 110, 120, 125, 132, 138, 139, 142, 143, 144, 147, 148, 149, 150, and 151 are each presented in independent form. Claims 1 – 5, 7, 9 – 18, 21 – 28, 33 – 35, 37 – 49, 51, 53, 55 – 63, 65 – 71, 77, 78, 81 – 91, 93 – 106, 108, 110 – 112, 114 – 117, 120 – 127, 130 – 133, 136 – 139, 141 – 144 and 147 – 152 have been amended, claims 156 and 157 have been added and no claims were canceled. The status identifies to claims 8, 19-20, 29-32, 36, 50, 52, 64, 76, 80, 107, 113, 140 and others have been modified in accordance with suggestions by the exmainer. The status identifier of claim 18 was checked, but found in compliance with 37 CFR 1.121(c). Reconsideration of the claims is respectfully requested.

I. Background

The present invention is directed to a *futures exchange* for trading service futures contracts. As discussed more thoroughly in the background section of the present specification, a *futures exchange* is a device created for reallocating risk. In the case of a *commodities exchange*, risk of price fluctuation of a commodity is assumed by participants in the exchange who trade for commodity futures contracts for delivery of the underlying commodity (the underlying asset). Speculators take advantage of an exchange in the hopes of realizing profits from price changes, which enables hedgers (commodity producers) to lock in a fixed price for delivery at a certain date in the future. The underlying assets of the futures contracts, in accordance with the present invention, are services. **Importantly, present invention does not relate to any type of commodity or financial instrument, such as financial instruments, foreign currencies or any type of index.**

To say that *futures exchanges* are useful is an understatement. Before the development of *commodities futures exchanges*, commodity producers such as ranchers, farmers, mine owners and the like, had no way of knowing if they were receiving the best

price for their commodities, or even what price their commodities would yield at harvest time. Conversely, manufacturers and consumers of the commodities could not accurately assess the future price that would be necessary for acquiring raw commodities necessary for their production and/or use. Most producers of like-commodities harvested and sold their commodities at the same time, causing a glut of commodity during harvest time. Supply was always highest at harvest time, which meant producers often had to sell their commodity far below their breakeven price.

II. Background Facts Concerning Property Ownership and Contracting

The following is presented to the Examiner as a convenience to the Examiner and is not meant to limit the scope of the pending claims or the present specification.

Property Ownership - Initially, it should be understood that *ownership* of some type of *property* involves attaining rights associated with that property. When a person secures the rights to a property, it is sometime said that that person attains *title* to the subject property. A non-exhaustive list of these rights include, for example, the right to possess, enjoy, sell, mortgage, and grant licenses to the subject property. The term c*lear title* is sometimes used to indicate that the owner has attained ALL of the rights associated with the subject property and the title resides unencumbered with the owner. A *title* can be a formal document, which conveys ownership and the mere passing of the title to another is evidence of a change in ownership of the subject property.

Contract –A biding agreement between parties, *e.g.*, an agreement to transfer a property form one party to another is a *contract*. A contract is formed when two or more parties agree, or promise to do something. The contract creates rights and duties with the parties regarding the underlying subject matter of the contract, sometime referred to as the *contract terms*. The contract *terms* may specify, for example, *price*, a delivery or settlement date, *etc*. Performing the duties under the contract is termed *performance*.

Executory Contracts - Importantly, a contract is usually not executed immediately after it is formed. The buying party usually does NOT immediately own and take possession of the subject property, but instead the buying party attains only an interest in (or right to) the property until the duties under the contract are fully performed by the parties. An *executory contract* is a contract that is not fully executed and therefore does not convey PRESENT ownership of the property, but an interest in the contract. The property possessory ownership interests *vest* in the future, usually at the date specified in the contract for full performance. Conversely, during the executory period the seller of the property attains an interest in contract and an interest in the buyer's money, possession of which also *vests* in the future, at the date specified in the contract for payment.

Forward Contracts - A *forward contract* is one which is initiated at one time, and performance specified in the contract taking place at a future time. It always involves the exchange of one asset for another. The price at which the transaction takes place is negotiated at the formation of the contract. Payment and delivery of the goods takes place at a subsequent time to contract formation. A *forward contract* is cash market transaction in which delivery of the property is deferred until after the contract has been made. It is not standardized and is not traded on organized exchanges.

Options - It should be understood that the selling party cannot transfer more rights that she owns. Therefore, the contract terms may specify which rights in the property will be transferred. For example, the selling party may have previous granted a license to a third party for the property which is not extinguished by its transfer. A buying party takes the property subject to the interests of the licensee (*e.g.*, a home owner may have leased the house to tenants who will remain in possession after the contract is executed). In another example, the *contract* may be conditional an executory *option* or *right of first refusal*. In that case, the *third party* enjoys the right to buy the subject property away from the contract buyer during the executory period. Importantly, the *option* owner does

not have a duty to execute the option. The option may expire unexecuted, by time limit or by conveying the property.

Contract Assignments - Another right which may be expressly created or prohibited by a contact is the right for the *buying party* to *assign* the contract rights and/or duties to third party. If a sales contract grants the right of assignment, the selling party owes the duty to the rightful third party *assignee* and usually must convey the property to that party. The original contracting buying party is usually off the hook for the sale, purchase price or any other duty specified by the contract. *Forward sales contracts* almost universally prohibit assignments to third parties in order that the original contract positively identify the buying party and persevere the duty to pay the contract price with the known buying party. In any case, assignments create uncertainty and increase the overhead and expense associated with a contract. For example, at execution data the selling party must perform his duty to convey the property to the rightful buying party. However, if the contract has been repeatedly assigned, then the identity of the rightful buying party must be ascertained through the examination of multiple assignments. A *chain* of assignments must be established, and the duty of the selling party to convey the property is owed to the last assignee in the chain. This process becomes unwieldy with multiple assignees are involved and increases the expense of the transaction substantially. Regardless of how many time the original (or underlying) contract is assigned, it is never extinguished until it is executed (fully performed).

Futures Contract - A future is a legally binding agreement to purchase or sell a commodity for delivery in the future: (1) at a *futures* price that is determined at initiation of the contract; (2) which obligates each party to the contract to fulfill the contract at the specified *futures* price; (3) which is used to assume or shift price risk; and (4) which may be satisfied by delivery or offset (*e.g.*, cash and/or obtaining an offsetting futures position). *Futures contracts* are standardized according to the quality, quantity, and delivery time and location for each commodity. The only variable is futures price, which

is discovered on an exchange trading floor. Once discovered, the price agreed upon today by the buyer and seller of the future. Typically, the *futures* buying party pledges to pay the futures price at the execution data by posting a margin amount of good faith money. Determining the margin amounts is one of the functions of a *Futures Exchange*. Once each day, the U.S. futures exchanges make adjustment of the book value or collateral value of a security to reflect current market value for a given futures or option contract position by calculating the gain or loss in each contract position resulting from changes in the price of the futures or option contracts. The resulting daily gains and losses are passed through to the gaining or losing accounts. Depending on the end-of-day settlement prices, the *futures contract* owner may be required to increase the margin amount of good faith money. Futures contracts can be terminated by an *offsetting* transaction (*i.e.*, an equal and opposite transaction to the one that opened the position) executed at any time prior to the contract's expiration. The vast majority of futures contracts are terminated by offset or a final cash payment rather than by delivery.

Distinctions Between Futures Contacts and Forward Contracts - A f*utures contract* can be distinguished from a *forward contract* in the following ways. *Futures contracts* always trade on an organized exchange. Second, futures contracts have standardized terms. With a futures contract, the quality, quantity, and delivery date is pre-determined.

Third, Futures exchanges use clearinghouses to guarantee that the terms of the futures contract is fulfilled. Typically, most contracts do not specify one else to guarantee that the contract would be fulfilled if one of the contracting parties decided not to complete the transaction. The futures exchanges use clearinghouses to see to it that the obligations of the contract are fulfilled. The clearinghouse is the actual buyer of the contract from the short seller. And the clearinghouse is the actual seller of the long contract. If either party defaults on the contract the clearinghouse steps in and becomes the seller or buyer of last resort. The clearinghouse guarantees that the contract will be

fulfilled. Neither party needs to trust the other party. In the history of futures trading in America, the clearinghouse system has always worked.

Fourth, margins and daily settlement are required with futures trading. These are other safeguards in the futures market. Each customer must put up a good faith deposit. The amount of this margin varies from exchange to exchange and broker to broker. However, no broker may margin a contract for less than the exchange minimum. Each trading day every futures contract is assessed for liquidity. If the margin drops below a certain level the trader must deposit additional margin. This is called 'Maintenance Margin'.

Fifth, futures positions can easily be closed. The trader has the option of taking physical deliver, or placing an offsetting trade, or further still arranging an exchange-for-physicals transaction. In a typical forward contract, the sole mechanism for getting out of the forward contract, without taking making or delivery of the asset (and the reciprocal payment) is to breach the contract. The futures exchange makes exiting a contract relatively easy.

Finally, forward contract markets are self regulating and futures markets are regulated by certain agencies dedicated to this responsibility.

The Chicago Mercantile Exchange (CME) has four major product areas: interest rates, stock indexes, foreign exchange and commodities. In 2000, more than 231 million contracts with an underlying value of $155 trillion changed hands at CME, representing the largest notional value traded on any futures exchange in the world. That's the face value of all the contracts traded. Only a small fraction of the $155 trillion are actually delivered to the forward and spot markets, but even with that, the CME managed to generate over $100 million in transaction fee revenue in 2000.

I. 35 U.S.C. § 101

The Examiner has rejected, apparently, the claims present in method form under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

The Examiner states:

> The claimed invention is directed to non-statutory subject matter. The presented limitations are within the body of the claimed subject matter are based upon abstract ideas that can be carried out by a manual human process. This is a lack of technical basis because (see *Ex Parte Bowman**, 61 USPQ 2d 1665, 1671). It is therefore incumbent upon the applicant to present claim language within the body of the claim(s) that shows the use of technology performing one of more limitations. For example: instead of "receiving a bid order ..." you can say, "receiving a bid order into a computer..." (If a computer is the technology being used to perform the limitation). It is not enough for the preamble to cite "a data processing system... " The limitations within the body must provide language of technical basis. Failure to amend the claims in the manner explained about will be considered a non-compliant response to this office action.
>
> Note: *Although Bowman is not precedential Bowman is being cited for its analysis of whether the claim is in the technical arts.

Applicant's representative disagrees with the legal basis of the rejection and its application to the present claims.

a. Claims 44 – 154 are clearly directed to "technology"

Claims **44 – 88** are directed to a "data processing system" which clearly falls under the statutory category of a machine (or apparatus). Moreover, physical elements of the data processing system are recited in terms of "means plus function" language, which is statutorily compliant under 35 USC § 112 paragraph six. *In re Donaldson*, 16 F.3d 1189, 29 USPQ2d 1845, (Fed. Cir. 1994). The Examiner has made no arguments to the contrary, nor has the Examiner argued that the specification lacks support for the claimed elements recited in means plus function language. It can only be assumed that these claims are not rejected as being nonstatutory under 35 U.S.C. § 101.

Claims **89 – 99** are directed to a "data processing system" which clearly falls under the statutory category of a machine (or apparatus). Moreover, claim elements are recited in as separate systems. The Examiner has made no arguments to the contrary. It can only be assumed that these claims are not rejected as being nonstatutory under 35 U.S.C. § 101.

Claims **100 – 143** are directed to a "computer program product embodied on a computer readable medium," which clearly falls under the statutory category of an article of manufacture. Although the Examiner has not argued that the instructions on the computer readable medium are not "useful," the utility of a service contract futures exchange for trading service futures contracts is clearly apparent for reallocating risk form service provider to, for example, market speculators, and enabling consumers of the service to accurately assess the future price of the service.

b. Claims 28, 31 and 32 are clearly directed to "technology"

Even assuming the Examiner's comments are an accurate statement of the current law, claims **28, 31** and **32** each recite that one or more step is performed electronically, and therefore clearly accomplished by the data processing system.

c. All claims are directed to and invention within the technological arts

The Examiner states, without any legal authority whatsoever, that the "limitations are within the body of the claimed subject matter are based upon abstract ideas that can be carried out by a manual human process." Applicant's representative disagrees.

Initially it should be understood that according to the U.S. Supreme Court in *Diamond v. Chakrabarty* (1980), patentable subject matter extends to "anything under the sun that is made by man." The Court did not take that occasion to except method claims from its edict, nor has the Court ever placed method type claims in a separate category from machine, article of manufacture or compositions of matter categories of claims. The legal standard is "new and useful" and not whether or not the method "can be carried out by a manual human process." Apparently the Examiner is invoking a "*personal skills doctrine*" with regard to the method claims.

Some commentators have urged the U.S. Congress to place a ban on patents with claims directed to personal skills such as teaching, athletic techniques, haircutting methods, and similar activities and as such should not qualify as inventions under the U.S. patent laws. Examples of these types of patents abound and include, for example: U.S. Patent No. 6,257,248 (issued July 10, 2001) entitled "Both Hand Hair Cutting Method"; U.S. Patent No. 4,022,227 (issued May 10, 1977) entitled "Method of Concealing Partial Baldness"; U.S. Patent No. 5,992,027 (issued Nov. 30, 1999) entitled "Method of Determining the Correct Size in Women's Sewing Patterns"; U.S. Patent No. 5,851,117 (issued Dec. 22, 1998) entitled "Building Block Training Systems and Training Methods"; U.S. Patent No. 5,558,519 (issued Sept. 24, 1996) entitled "Method for Instruction of Golf and the Like"; and U.S. Patent No. 5,443,036 (issued Aug. 22, 1995) entitled "Method of Exercising a Cat." However, the U.S. Congress has disregarded such attempt to exclude such inventions from obtaining patentable status or even to place limitations on such patents that are issued by the U.S. Patent Office. To date, Applicant's representative can find no exception to patentability under current U.S.

law which supports the Examiner's contention (with the narrow exception of methods of performing surgery 35 U.S.C. § 287(c) (1994 & Supp. 1999).

Finally, the Examiner suggests amending the claims in such a manner as to provide language of technical basis within the body of the claims, and failure to amend the claims in the proscribed manner will be considered a non-compliant response to this office action. Applicant's representation strenuously disagrees with both the Examiner's characterization of the law and the Examiner's attempt to bar Applicant from appealing the claims as presently presented.

The Examiner is reminded that the Federal Circuit not only that business method are within the technical arts (*State Street Bank & Trust Co. v. Signature Financial Group Inc.* 149 F.3d 1368, 47 USPQ2d 1596) but that court also, apparently, did away with the requirement that a method claim must involve any sort of physical transformation in order to render it patentable and instead focused on the "useful, concrete and tangible result" aspect of its test from *State Street. AT&T Corp. v. Excel Communications, Inc.* 149 F.3d 1368 (Fed. Cir. 1998). Moreover, in *State Street* this court, following the Supreme Court's guidance in *Diehr*, concluded that "[u]npatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not 'useful.' It is respectfully asserted that the present claims are directed to a service futures contract exchange have the "useful, concrete and tangible result" of reallocating risk from service producers and as a result stabilized service prices over time.

More importantly for the presently present claims, the court in *AT&T Corp. v. Excel* considered a claim without any language within the body of the claim(s) that shows the use of technology performing one of more limitations. The court consider claim 1 as reported below.

> A method for use in a telecommunications system in which interexchange calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber, said method comprising the steps of:
>
> generating a message record for an interexchange call between an originating subscriber and a terminating subscriber, and
>
> including, in said message record, a primary interexchange carrier (PIC) indicator having a value which is a function of whether or not the interexchange carrier associated with said terminating subscriber is a predetermined one of said interexchange carriers.

It is respectfully asserted that using the Examiner's analysis, the claim considered by the Federal Circuit in *AT&T Corp.* would be found wholly nonstatutory and unpatentable.

It is respectfully asserted that the Applicant has demonstrated that each claim in the present application is directed to statutory subject matters as require by 35 USC 101. However, Applicant is also aware of the pragmatic reality of an overly oppressive examination process at the US Patent Office in which the present application has languished for years to the Applicant's detriment. Given that reality, Applicant has elected to amend the present claims in strict accordance with the Examiner's suggestions. Applicant does so, however, with the understanding that Applicant does not waive any future right to recapture subject matters nor is Applicant estoppeled from appealing.

IV. 35 U.S.C. § 103, Obviousness

The Examiner has, apparently, rejected claims **1-155** under 35 U.S.C. § 103 as being unpatentable over Wagner (US 4,903, 201) in view of Denning et al., "Baltic Freight Futures: Random Walk or Seasonally Predictable? International Review of Economics and Finance 3(4) 399-428. This rejection is respectfully traversed.

With regard to this rejection the Examiner states:

> Wagner discloses as in claims 1, 11, 21, 26, 33, 40, 43, 44, 45, 55, 65, 70, 77, 83, 84, 88, 89, 100, 110, 120, 125, 139, 143, 144, 147, 148, 148, 149, 150, 151, 152, 155 a computerized exchange system receiving a bid order for a contract, wherein the bid order originates from the bidder;
>
> Matching the bid order for the service with an ask order for a corresponding Service contract, wherein an asker owns the corresponding service contract, wherein an asker owns the corresponding service contract and ask order originates from the asker;
>
> and transferring ownership of the corresponding service contract to the bidder (see Wagner, col. 5, II. 5-30).
>
> Wagner discloses a trading exchange system for transactions of futures commodity contracts but fails to disclose the exchange system for service contracts. Denning discloses that the Baltic International Freight Futures Market ("BIFFEX") is a futures market where the under lying asset is a service (see Denning et al. Introduction Page 399 and Conclusions on page 423). Since Denning suggests similarities between BIFFEX and the New York Stock Exchange (see Denning page 401, paragraph 2), it would have been obvious for an artisan of ordinary skill in the art to substitute the service contracts of BIFFEX for the commodity contract of Wagner because an artisan at the time of the invention would have recognized the benefits of an automated service contract futures exchange to conveniently provide efficient remote matching between large volumes of bidders and askers. Thus such a modification would have been an obvious expedient well within the ordinary skill in the art.

Claims 1 – 155:

With regard to Wagner, the Examiner rightly points to one of the distinctions between the teaching of Wagner and the claimed invention. Thus, Wagner does not teach or suggest the present invention as the Examiner also right asserts.

The Examiner then turns to Denning for support of a service contract futures exchange. Specifically, the Examiner refers to pages 399 and 423 for support. Applicant implores the Examiner to consider fully the teachings on those pages and the overall teaching of Denning. In stark contrast to the Examiner's assertion, Applicant asserts that rather than suggesting trading any type of service contracts or service futures contracts, Denning actually teaches away from any type of services contract futures exchange. In the conclusion section on page 423, Denning asserts that such an exchange is simply not possible do to the differences in the nature of a service and that of a commodity (see specifically the first paragraph of the conclusion section page 423). These distinctions have been fully considered by the Applicant of the present invention and overcome by the implementation of the presently claimed services contract futures exchange.

More importantly, Denning describes a method for improving the existing *commodities* futures trading of *indices*, practiced on the BIFFEX (see, for example, section: II Institutional description, page 400). Noticeably, what is traded on the BIFFEX in an index, *i.e.*, a commodity, and not a service futures contract. In fact, Denning disclosure might be considered a critical essay on results obtained by applying techniques disclosed in the author's previous works relating to a multivariate variance ratio test of the random walk hypothesis. In any case, on fundamental difference between Denning and Denning's previous works is that the Denning methodology is applied to a *commodity* in the form of an index and not to a service futures contract. It is precisely for the reason that service future contracts cannot be realized does Denning suggest modifications of the multivariate variance ratio test of the random walk hypothesis.

It is respectfully asserted that not only does Denning not teach or suggest the presently claimed invention, but Denning teaches away from the present invention in commentary and in Denning's previous teaching referred to therein, which proposes shifting risk associated with service by treating services are indexes for the purpose of futures trading. This methodology simply does not teach or suggest the present invention, but instead provides and alternative solution for some of the shortcoming of the prior art solved by the presently claimed invention.

Moreover, it is respectfully asserted that trading any commodity, including a financial instrument such as an index, is not suggestive of service contract futures exchange, or of trading service futures contracts and establishing service contract futures positions.

Royalty escrow services contract futures:

Claims **16 - 18, 35, 39, 60, 62, 79, 83, 115, 117, 134, 117, 134, 138, 152** and **154** are directed to royalty escrow services contract futures where the producer of a service retains a royalty interest in the service. Each time the service futures contract is bought and sold, royalty is calculated based on the amount of the sale and escrowed for the service provider. Thus, service providers are encouraged to participate in the services futures exchange in a way never before possible with a prior art commodity exchange. Nowhere does Wagner or Denning even hint at such a feature.

Therefore, the rejection of claims **16 - 18, 35, 39, 60, 62, 79, 83, 115, 117, 134, 117, 134, 138, 152** and **154** under 35 U.S.C. § 103 has been overcome.

Conjunctive service contracts:

Claims **43, 87, 142** and **155** recite a conjunctive service contract where one service is conjunctively joined to another service to produce an entirely different service. This is not merely adding quantities of like services to fill an order amount, but the

creation of a different service from two or more subpart services. For example, barge capacity from an origination port to a destination port may not be available. However, barge capacity from the origination port to a third port may be conjunctively joined to barge capacity from the third port to the destination port. Thus, the amount of barge capacity is not altered, but the service itself has been conjunctively altered.

To the extent that the Examiner has referenced any of the present claims in this rejection, it is respectfully urged that the rejection of those claims has been overcome.

VII. Conclusion

It is respectfully urged that the subject application is patentable over Wagner and Denning and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

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